



PATENT
Docket No. 290.00040130

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	GUO, Peixuan et al.)	Group Art Unit:	1635
)		
Serial No.:	10/539,241)	Examiner:	Unassigned
)		
Filed:	16 June 2005)	Confirmation No.:	2305
)		
For:	pRNA CHIMERA)		

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with C.F.R. §§ 1.97 *et. seq.*, the materials enclosed herewith are brought to the attention of the Examiner as possibly being of interest in connection with the above-identified patent application. Pursuant to MPEP § 609, the information cited in the present Information Disclosure Statement shall not be construed to be an admission that the information is, or is considered to be, material to patentability. Consideration of each of the documents listed on the attached 1449 forms is respectfully requested. Pursuant to the provisions of M.P.E.P. §609, Applicants further request that a copy of the 1449 forms, marked as being considered and initialed by the Examiner, be returned with the next Official Communication.

Applicants also wish to bring the Examiner's attention to any pending U.S. Application cited in the 1449 forms submitted herewith, as well as any documents, Office Actions that may include rejections of similar claims, and any provisional U.S. patent applications referenced in the pending U.S. applications or in their file wrappers.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /K.C./

Information Disclosure Statement

Page 2 of 2

Applicant(s): GUO, Peixuan et al.

Serial No.: 10/539,241

Confirmation No.: 2305

Filed: 16 June 2005

For: pRNA CHIMERA

This application is a U.S. national stage of PCT/US2003/039950, which is a continuation-in-part application of U.S. Patent Application Serial No. 10/373,612, filed 24 February 2003. In accordance with 37 C.F.R. §1.98(d), copies of documents previously cited by or submitted to the U.S. Patent and Trademark Office in connection with Applicants' prior application listed above, are not included herewith.

It is believed that no fee is due, as this Information Disclosure Statement is filed prior to the receipt of any Action on the merits. However, in the event a fee is due, please charge any fee or credit any overpayment to Account No. 13-4895.

The Examiner is invited to contact Applicants' Representatives at the below-listed telephone number, if they can be of any assistance during prosecution of the present application.

Respectfully submitted

By

Muetting, Raasch & Gebhardt, P.A.

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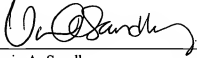
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INFORMATION DISCLOSURE STATEMENT 	Atty. Docket No.: 290.00040130	Serial No.: 10/539,241
	Applicant(s): Guo et al.	Confirmation No.: 2305
	Application Filing Date: 16 June 2005	Group: 1635
	Information Disclosure Statement mailed: <u>July 19</u> , 2007	

U.S. PATENT DOCUMENTS

Examiner Initial	Copy Enclosed	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
		6,448,083 B1	09/10/2002	Larocca et al.			
		2001/0049111 A1	12/06/2001	Windhab et al.			
		2002/0150917 A1	10/17/2002	Weidenhammer et al.			
		2004/0157304 A1	08/12/2004	Guo			
		2005/0266416 A1	12/01/2005	Guo			

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Examiner Initial	Copy Enclosed	Document Number	Date	Country	Class	Subclass	Translation	
		WO 93/24133	12/09/1993	PCT			Yes	No
		WO 99/51755	10/14/1999	PCT				
		WO 02/016596 A2	02/28/2002	PCT				
		WO 02/016596 A3	02/28/2002	PCT				
		WO 2005/003293 A2	01/13/2005	PCT				
		WO 2005/003293 A3	01/13/2005	PCT				
		WO 2005/035760 A2	04/21/2005	PCT				

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

Examiner Initial	Copy Enclosed	Document Description
		Aggarwal et al., "Biodegradable Alginate Microspheres as a Delivery System for Naked DNA," <i>Can. J. Vet. Res.</i> , 1999; 63:148-152.
		Bailey et al., "Phylogenetic analysis and secondary structure of the <i>Bacillus subtilis</i> bacteriophage RNA required for DNA packaging," <i>J. Biol. Chem.</i> , 1990; 265:22365-70.
		Bazinet et al., "The DNA translocating vertex of dsDNA bacteriophage," <i>Ann. Rev. Microbiol.</i> , 1985;39:109-129.

EXAMINER	Date Considered
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		Becerril et al., "Toward selection of internalizing antibodies from phage libraries," <i>Biochem. Biophys. Res. Commun.</i> , 1999; 255:386-393.
		Bergelson et al., "Isolation of a common receptor for Coxsackie B viruses and adenoviruses 2 and 5," <i>Science</i> , 1997;275(5304):1320-1323.
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		Bilbao et al., "57: Targeted adenoviral vectors for cancer gene therapy," in Walden (Ed.) <i>Gene Therapy of Cancer</i> , 1998; Plenum Press: New York, NY: Title page, publisher's page, and pp. 365-374.
		Bjornsti et al., "Morphogenesis of bacteriophage phi 29 of <i>Bacillus subtilis</i> : DNA-gp3 intermediate in in vivo and in vitro assembly," <i>J. Virol.</i> , 1982 Feb.;41:508-517.
		Bjornsti et al., "Morphogenesis of bacteriophage phi 29 of <i>Bacillus subtilis</i> : prohead restoration for DNA-gp3 packaging and assembly," <i>J. Virol.</i> , 1985 March;53(3):858-861.
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		Bouvet, "42: Determination of Nucleic Acid Recognition Sequences by SELEX," in Moss (Ed.) <i>Methods in Molecular Biology: DNA-Protein Interactions; Principles and Protocols 2nd Edition</i> , 2001; Vol. 148; Humana Press: Totowa, NJ. pp. 603-610.
		Bramlage et al., "HIV-1 as a target for synthetic ribozyme-mediated inhibition of gene expression: site selection and inhibition in cell culture," <i>Nucleic Acids Res.</i> , 2000; 28(21):4059-4067.

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NOT FOR PUBLICATION OR CONSIDERED EXCEPT WHERE LINED THROUGH. /K.C./

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		Brummelkamp et al., "A System for Stable Expression of Short Interfering RNAs in Mammalian Cells," <i>Science</i> , 2002 April 19; 296:550-553.
		Burnell, "Nanotech finds biological inspiration," October 12, 2002; <i>The Washington Times</i> [online], [retrieved on 2003-03-21]. Retrieved from the Internet:<URL:http://www.washtimes.com/upi-breaking/20021012-122115-2395r.htm>; 2 pgs.
		Carazo et al., "Three-dimensional reconstruction of the connector of bacteriophage phi29 at 1.8 nm resolution," <i>J. Mol. Biol.</i> , 1986 December 20; 192(4):853-867.
		Carmichael, "Silencing viruses with RNA," <i>Nature</i> , 2002 July 25; 418(6896):379-80.
		Carrascosa et al., "A precursor of the neck appendage protein of B. Subtilis phage phi 29," <i>FEBS Lett.</i> , 1974; 44(3):317-321.
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		Chang et al., "The structure of an RNA "kissing" hairpin complex of the HIV TAR hairpin loop and its complement," <i>J. Mol. Biol.</i> , 1997 May 30; 269(1):52-66.
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		Chen et al., "Sequential Action of Six Virus-Enclosed DNA-Packaging RNAs during Phage ϕ 29 Genomic DNA Translocation," <i>J. Virol.</i> , 1997; 71(5):3864-3871.
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		Chowrira et al., "Novel guanosine requirement for catalysis by the hairpin ribozyme," <i>Nature</i> , 1991 November; 354:320-322.
		Ciesiolka et al., "Selection of an RNA domain that binds Zn ²⁺ ," <i>RNA</i> , 1995; 1:538-50.
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		Coleman et al., "A novel immune system against bacteriophage infection using complementary RNA (micRNA)," <i>Nature</i> , 1985; 315:601-603.
		Cotten et al., "Ribozyme mediated destruction of RNA in vivo," <i>EMBO J.</i> , 1989; 8(12):3861-3866.
		Cotten et al., "High-efficiency receptor-mediated delivery of small and large (48 kilobase gene constructs using the endosome-disruption activity of defective or chemically inactivated adenovirus particles," <i>Proc. Natl. Acad. Sci. U.S.A.</i> , 1992; 89:6094-6098.
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		Dieckmann et al., "Solution structure of an ATP-binding RNA aptamer reveals a novel fold," <i>RNA</i> , 1996; 2, 628-640.
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		DuraScribe® T7 Transcription Kit/DuraScribe® SP6 Transcription Kit. Product Datasheet. EPICENTRE Biotechnologies: Madison, WI; Available online [Retrieved 2006-04-21]. Retrieved from the Internet: < http://www.epibio.com/item.asp?id=408 >; 4 pgs.
		Earnshaw et al., "DNA packaging by the double-stranded DNA bacteriophages," <i>Cell</i> , 1980; 21:319-331.

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		Ellington et al., " <i>In vitro</i> selection of RNA molecules that bind specific ligands," <i>Nature</i> , 1990; 346:818-22.
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		Feng et al., "Antiviral activity of a Hammerhead Ribozyme against HBV in HepG2.215 cells," <i>Sheng Wu Hua Xue Yu Sheng Wu Wu Li Xue Bao (Shanghai)</i> , 2002; 34(2):204-8. English Language Abstract only.
		Feng et al., "Inhibition of hepatitis B virus by hammerhead ribozyme targeted to the poly(A) signal sequence in cultured cells," <i>Biol. Chem.</i> , 2001; 382:655-60.
		Feng et al., "Inhibition of CCR5-Dependent HIV-1 Infection by Hairpin Ribozyme Gene Therapy against CC-Chemokine Receptor 5," <i>Virology</i> , 2000; 276:271-278.
		Folini et al., "Inhibition of Telomerase Activity by a Hammerhead Ribozyme Targeting the RNA Component of Telomerase in Human Melanoma Cells," <i>J. Invest. Dermatol.</i> , 2000 February; 114(2):259-67.
		Forster et al., "Self-cleavage of virusoid RNA is performed by the proposed 55-nucleotide active site," <i>Cell</i> , 1987 July 3; 50:9-16.
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		García et al., "Assembly of the Tail Protein of the <i>Bacillus subtilis</i> phage phi29," <i>Virology</i> , 1983 February; 125:18-30.
		Garver et al., "Boundary of pRNA functional domains and minimum pRNA sequence requirement for specific connector binding and DNA packaging of phage phi29," <i>RNA</i> , 1997; 3:1068-79.

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		Garver et al., "Mapping the Inter-RNA Interaction of Bacterial Virus Phi29 Packaging RNA by Site-specific Photoaffinity Cross-linking," <i>J. Biol. Chem.</i> , 2000; 275(4):2817-24.
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		Gitlin et al., "Short interfering RNA confers intracellular antiviral immunity in human cells," <i>Nature</i> , 2002 July 25; 418(6896):430-4.
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		Grimes et al., "Bacteriophage phi 29 DNA packaging," <i>Adv. Virus Res.</i> , 2002; 58:255-294.
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		Guo et al., "A defined system for <i>in vitro</i> packaging of DNA-gp3 of the <i>Bacillus subtilis</i> bacteriophage ϕ 29," <i>Proc. Nat'l Acad. Sci. US</i> , 1986; 83, 3505-3509
		Guo, P. et al., "Characterization of the small RNA of the bacteriophage phi29 DNA packaging machine," <i>Nucl. Acids Res.</i> , 1987; 15:7081-90.
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		Guo, P. "Introduction: Principles, perspectives, and potential applications in viral assembly," <i>Seminars in Virology (Editor's Introduction)</i> , 1994, 5(1):1-3.
		Guo, P. et al., "Inter-RNA interaction of phage phi29 RNA to form a hexameric complex for viral DNA transportation," <i>Mol. Cell.</i> , 1998; 2:149-55.
		Guo, P. et al., "Methods for structural and functional analysis of an RNA hexamer of bacterial virus phi29 DNA packaging motor," <i>Acta Biochimica et Biophysica Sinica</i> , 2002; 34(5):533-543. Available online [retrieved 2007-07-03]. Retrieved from the Internet: < http://www.abbs.info/fulltxt/eng/34050533.htm >; 27 pgs.
		Guo, "Structure and function of phi29 hexameric RNA that drive viral DNA packaging motor: Review," <i>Prog. in Nucl. Acid Res. & Mole. Biol.</i> , 2002; 72:415-472.
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		Guo, P. et al., "Viral Motors," Oral Presentation. Nanotechnology 2003: Big things in Little Packages; American Association for the Advancement of Science; Denver, CO. February 13-14, 2003. Meeting Schedule available online [retrieved 2007-07-02]. Retrieved from the Internet: < http://www.aaas.org/meetings/2003/MPE_13.shtml >; 3 pgs.
		Guo P., "RNA nanotechnology: engineering, assembly, and applications in detection, gene delivery and therapy," 2005 <i>J. Nanosci. Nanotech.</i> 5(12): 1964-1982.
		Guo, P., "Chapter 13: Bacterial virus phi29 DNA-packaging motor and its potential applications in gene therapy and nanotechnology," in Vo-Dinh (Ed.) <i>Methods in Molecular Biology: Protein Nanotechnology</i> ; Humana Press: Totowa, New Jersey. 2005. Title page and pgs. 285-324.

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		Guo, P. et al., "Viral nanomotors for packagingof dsDNA and dsRNA," 2007 <i>Mol. Microbiol.</i> 64(4):886-903.
		Guo, Peixuan "sRNA of Phage phi29 Essential for DNA Packaging," Grant Abstract, Grant Number 1R01GM048159-01 [online].National Institute of Health - National Institute of General Medical Sciences, project dates 1992-08-01 to 1996-07-31 [retrieved on 2007-07-02]. Retrieved from the Internet: <URL: ">http://crisp.cit.nih.gov/crisp/CRISP_LIB.getdoc?textkey=3307636&p_grant_num=1R01GM048159-01&p_query=&ticket=40535116&p_audit_session_id=249250764&p_keywords=> ; 2 pgs.
		Guo, Peixuan "sRNA of Phage phi29 Essential for DNA Packaging," Grant Abstract, Grant Number 5R01GM048159-02 [online].National Institute of Health - National Institute of General Medical Sciences, project dates 1992-08-01 to 1996-07-31 [retrieved on 2007-07-02]. Retrieved from the Internet: <URL: ">http://crisp.cit.nih.gov/crisp/CRISP_LIB.getdoc?textkey=3307637&p_grant_num=5R01GM048159-02&p_query=&ticket=40535116&p_audit_session_id=249250764&p_keywords=> ; 2 pgs.
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		Guo, Peixuan "sRNA of Phage phi29 Essential for DNA Packaging," Grant Abstract, Grant Number 5R01GM048159-04 [online].National Institute of Health - National Institute of General Medical Sciences, project dates 1992-08-01 to 1997-04-30 [retrieved on 2007-07-02]. Retrieved from the Internet: <URL: ">http://crisp.cit.nih.gov/crisp/CRISP_LIB.getdoc?textkey=2185638&p_grant_num=5R01GM048159-04&p_query=&ticket=40535116&p_audit_session_id=249250764&p_keywords=> ; 1 pg.

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	Applicant(s): Guo et al.	Confirmation No.: 2305
	Application Filing Date: 16 June 2005	Group: 1635
	Information Disclosure Statement mailed: <u>July 19</u> , 2007	

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